

Title (en)
REVERSE OSMOSIS ASSEMBLY

Title (de)
RO-(UMKEHROSMOSE) ANLAGE

Title (fr)
INSTALLATION RO (OSMOSE INVERSÉE)

Publication
EP 2865651 A1 20150429 (DE)

Application
EP 15000211 A 20120317

Priority

- DE 102011102662 A 20110527
- EP 12001827 A 20120317

Abstract (en)
[origin: EP2527303A1] Reverse osmosis plant (60) that is couplable with at least one load, preferably dialysis apparatus to supply high-purity permeate, comprises a raw water supply line (9) that supplies raw water to a filter module (10), whose primary chamber is separated from secondary chamber by semi-permeable membrane. The raw water supply line comprises permeate collecting pipe that is connected with distribution system for permeate, a permeate supply line with at least one connection, and a permeate-return line. The permeate-distribution system comprises at least one device for cleaning and/or disinfecting. Reverse osmosis plant (60) that is couplable with at least one load, preferably a dialysis apparatus to supply high-purity permeate, comprises a raw water supply line (9) that supplies raw water to a filter module (10), whose primary chamber is separated from a secondary chamber by a semi-permeable membrane. The raw water supply line comprises permeate collecting pipe that is connected at one end with a distribution system for permeate, a permeate supply line with at least one connection that is coupled to the load, and a permeate-return line. The permeate-distribution system comprises at least one device for cleaning and/or disinfecting, where a concentrate discharge pipe leads away the filter module from the primary chamber. The permeate collecting pipe, the cleaning- and/or disinfecting device and a circulating pump (27) are arranged in a circulating circuit.

Abstract (de)
Die RO-(Umkehrosmose)Anlage (10) hat ein Permeatsammelrohr (48), das an einem Ende mit einem Verteilungssystem für das Permeat verbunden ist, das wenigstens eine Einrichtung zur Reinigung und/oder Desinfektion aufweist (32). Das Permeatsammelrohr (48), die Reinigungs- und/oder Desinfektionseinrichtung (32) und eine Zirkulationspumpe (27) sind in einem Zirkulationskreis angeordnet.

IPC 8 full level

C02F 1/44 (2006.01); **A61L 2/04** (2006.01); **A61M 1/16** (2006.01); **B01D 61/02** (2006.01); **B01D 61/12** (2006.01); **B01D 61/58** (2006.01);
B01D 63/10 (2006.01); **B01D 65/02** (2006.01); **B01D 61/24** (2006.01); **C02F 1/02** (2006.01); **C02F 1/38** (2006.01); **C02F 1/467** (2006.01);
C02F 1/48 (2006.01); **C02F 1/78** (2006.01); **C02F 103/02** (2006.01)

CPC (source: EP US)

A61M 1/1656 (2013.01 - EP US); **A61M 1/1672** (2014.02 - EP US); **B01D 61/025** (2013.01 - EP US); **B01D 61/12** (2013.01 - EP US);
B01D 61/243 (2013.01 - EP US); **B01D 61/58** (2013.01 - EP US); **B01D 65/02** (2013.01 - EP US); **C02F 1/441** (2013.01 - EP US);
B01D 2311/04 (2013.01 - EP US); **B01D 2311/08** (2013.01 - EP US); **B01D 2311/103** (2013.01 - EP US); **B01D 2311/2531** (2022.08 - EP US);
B01D 2311/2607 (2013.01 - EP US); **B01D 2311/2615** (2013.01 - EP US); **B01D 2311/2676** (2013.01 - EP US);
B01D 2311/2684 (2013.01 - EP US); **B01D 2311/2692** (2013.01 - EP US); **B01D 2321/08** (2013.01 - EP US); **C02F 1/02** (2013.01 - EP US);
C02F 1/385 (2013.01 - EP US); **C02F 1/4672** (2013.01 - EP US); **C02F 1/48** (2013.01 - EP US); **C02F 1/78** (2013.01 - EP US);
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C02F 2303/22 (2013.01 - EP US); **C02F 2305/023** (2013.01 - EP US)

Citation (search report)

- [I] DE 10262036 A1 20040617 - VOELKER MANFRED [DE]
- [I] DE 3941131 C1 19910508
- [A] JP H0235916 A 19900206 - NITTO DENKO CORP
- [A] JP H02227128 A 19900910 - NITTO DENKO CORP
- [A] "Membranverfahren. Grundlagen der Modul- und Anlagenauslegung", 31 December 2007, SPRINGER VERLAG, ISBN: 978-3-54-034327-1, article THOMAS MELIN ET AL: "Modulkonstruktionen. Module mit Flachmembranen. Wickelmodul", pages: 173 - 175, XP055170968

Cited by

CN114275849A; EP3912706A1; US11654396B2

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EP 2865651 B1 20160622; ES 2542081 T3 20150730; ES 2586136 T3 20161011; PT 2865651 T 20160812; US 10099179 B2 20181016;
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